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Group-work as ‘terrains of learning’ for students in South African higher education

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Abstract

A common global perception of group-work in the higher education context is that it has the potential to act as platform which can enable student learning through interactions, shared diverse experiences, deep engagement with subject concepts and the achievement of tasks collaboratively. Indeed in different socio-economic, historical and institutional contexts group-work activities have become levers by which deeper learning could be achieved. Drawing on an analysis of a particular case of the group-work experiences among Environmental Science students at a South African University, we examine in what ways group-work may be more expansively viewed as ‘terrains of learning’ for students. The results generally indicate that group-work functioning has problematic elements. What this particular case study points to is the attention that should be paid to understanding issues of background, ethnicity and various student personalities that may hinder or enable the desired student learning. Such an understanding could contribute to debates around the achievement of higher quality learning given issues of diversity and transformation in the South African higher education context.

Key words: Group-work, higher education, diversity, learning

1. Introduction and background to the problem

In recent years, growing research on higher education teaching and student engagement has drawn together insights about which activities tend to generate high quality or deeper student learning (Rhem, 1995; Biggs, 1999; Mann, 2001; Coates, 2005; Haggis, 2006). According to Rhem (1995), a deeper approach to learning (learning for understanding) is an integrative process in which students synthesise and connect subject material to existing knowledge. Deep approaches to learning are partly premised on the principles of active involvement of and interactions among students (Biggs, 1999; Mann, 2001). Whether one's conception of quality learning relates to the approaches to learning (Marton and Säljö, 1984; Biggs 1999) or student engagement (Mann 2001; Coates 2005), the active involvement and interactions of students is seen as that which better promotes quality learning. The fulfillment of such principles may partially be fostered through group-based activities. Levin (2005) contends that intellectually group-work provides an educational learning opportunity for students as students are involved in the assessment and processing of alien values and ideas and react to unfamiliar 'knowledge' territories. Group-work is also said to promote team work, creativity, cooperative working methods, understanding of each other, opportunities to learn from others' experiences and perhaps new ways of doing things, ways of handling conflicts and disagreements and preparedness for working in culturally diverse work environments (Brownlie, 2001; Oakley et al. 2004; Levin, 2005).

It is also argued that the values and benefits of group-work as a teaching and learning strategy may endure well beyond the teaching class (e.g. Levin, 2005; Woods et al. 2011). Indeed most of these group-work benefits highlighted above are highly sought after by employers in the working world especially considering an increasingly globalizing world, and as such this pedagogical method is attractive for those concerned with curriculum responsiveness. There is need for responsible graduates that are global citizens - those who have acquired the knowledge, skills, attitudes and values required for working in a global village (Brownlie, 2001) and in a super complex world (Barnett, 2004; 2006). However, group-work is not without its challenges and it is uncommon not to find conflicts at the heart of group-work (e.g. Oakley et al. 2004; Knight, 2007). Simply placing students in groups may not achieve the desired outcome of quality learning.

The growing preference for this type of peer engagement may be influenced by the dominance of discourses from social-cultural theories of learning in ‘Western’ education. Social learning theories provide conceptual lenses for understanding how people learn in social contexts by learning from each other and shed light on how those who teach can construct active learning communities. Collaborative work in which students jointly work on the same problem is linked with ideas such as situated cognition and scaffolding (Edwards, 2009). The notion is that social interactions developed in this kind of enquiry arouse group members to think collectively. From Vygostky’s (1978) psychological point of view, this approach drives students to push beyond their individual level of thinking or zone of proximal development, and scaffolds their cognitive processes. Whilst many such psychological theorists may hold that learning is an individual-based process and failure to learn is attributed to individual characteristics, socio-cultural theories of learning have shifted our understanding to one that recognizes that learning processes occur within specific contexts that have social and cultural dimensions - a clear departure from the single rationality and a narrow progressive path of learning. In terms of group learning, this allows for a wider and more nuanced focus on social relations and their effect on individual learning within a group.

The possibilities of group-work become even more relevant given the argument that knowledge is not just an atomistic and fixed deliverable for individual possession but rather is socially constructed and contestable, and that the essence of human knowledge is that it is shared. According to Edwards (2009, p.59) in the group-work method, “learners work towards a joint understanding through argument as an active process, rather than a mere pooling of information”. In other words, group-work gives recognition to the fact that people construct knowledge together. This implies that instructional strategies that promote students learning through collaborative ways ought to be encouraged because such arrangements can allow students to engage in higher-order thinking tasks such as analysis, synthesis and evaluation of research results. So while students may not necessarily work in groups on a day to day basis, opportunities should be created within the curriculum for them to meet because of the potential imbedded in their interactions - where sharing of information, insights and advices, exploring ideas and solving of problems is typically a collective process. However, within the context of South African higher education, the increasingly changing cultural landscape of student

populations from previous homogeneity to heterogeneity calls for a re-examination of the different ways in which learning is approached by education practitioners (Woods et al. 2011) and experienced by students (Mann, 2001). Such concerns about the changing composition of students in our national context have resonances with those in countries such as Canada, Australia, USA and UK with the introduction of massification.

Conceptualising learning

Globally, there has been a significant shift in the conceptualisation of student learning process from individual-based (psychologist) theories to context-based theories (e.g. social constructivistic and socio-cultural theories). One of the dominant conceptions of learning that originated in Europe was learning as linear, atomistic and individualistic. This was plausible considering that during this era, the ‘Western’ university landscape was characterised by a homogenous cultural and socio-economic groupings of students, with learning in many ways considered as luxurious and elitist (Mann, 2001). This created scenarios of reproduction of the powerful at worst and maintaining the status quo at best. However, with the changing higher education landscape not only in terms of conceptualisation of learning but also in terms of ethnic and socio-economic dimensions; teaching and learning approaches are increasingly being reconfigured to suit diversified students compositions (e.g. Woods et al. 2011). Through this massification, the narrow understanding on educating students through transmission of knowledge has been problematized to allow for conceptions which one center on the development of critical beings (Mann, 2001), and enable epistemological access (Morrow, 1994).

As noted earlier, these (re)configurations have their roots in the work of Piaget (1985) and Vygotsky (1978) (on cognitive development) and are increasingly being (re)informed by constructivists and socio-cultural theories of learning. As learning takes place from interactions among students, their peers and the teachers as experts (Vygotsky, 1978), the main goal of higher education institutions within this framework is to provide an environment or conditions that foster quality learning. Thus, teachers ought to craft an enabling learning environment in which the learners’ ability to interact with each other through discussion, collaboration and feedback is maximised. The group-work method makes use of social process ideas and proposes strategies

for deeper knowledge construction, facilitating student discussions and building active learning communities through small group-based instruction. According to Northedge (2003, p.19), students do not learn deeply by listening to a teacher, or reading from a textbook but knowledge “arises out of a process of discoursing, situated within different contexts”.

However, despite the many seemingly desirable possibilities of the group-work method, the various experiences of group-work, especially given an increasingly diverse student population, remains little explored. Given this background, the main question that we seek to explore in this paper is whether group-work offers ‘terrains of learning’ (or facilitates the processes of quality learning) using a case study of Environmental Science students at a South African University. Such an understanding could provide ideas for facilitators to be more cognisant of challenges to student learning that may emerge from group-work. Our representation of this analysis is structured as follows: in the next section (3) we outline our methodological approaches; Section 4 provides and discusses the implications of the findings, and in Section 5 we present relevant conclusions and recommendations for future research.

2. Our methodological approach

The study was conducted with the participation of 2nd and 3rd year students in the Department of Environmental Science (DES) at a South African higher education institution. To provide a context, each year 2nd year and 3rd students undertake group-based fieldwork projects and a year-long research project respectively. Up to six students are placed into groups balanced for diversity in terms of socio-cultural backgrounds, gender and choice of major subject. A move towards diversified groups was a conscious choice of the curriculum developers in DES. Over the course of a year, group members work together on a variety of tasks, such as the preparation for and presentation of verbal presentations and preliminary reports, prior to undertaking an individually written examination. Critical cross-field outcomes for this group-work include ability to work in a team, identify and solve problems, collect qualitative and quantitative data and use it effectively, plan and manage a programme of work and communicate effectively (SAQA, 2000, p18). At both 2nd and 3rd year level, group-work research projects contribute a substantial 32% of the final mark/grade. A peer review system is used to determine an aspect of this grade, in an attempt to ensure that group members who are perceived by their group

members to contribute the most earn the highest marks. The assumption in DES has been that group-work may enrich students' learning experiences.

This study sought to elicit responses from these students regarding some important factors that affect group-work effectiveness utilizing a hard-copy questionnaire as the data collection method. Using ranked statements, radio boxes and open-ended questions, we designed the questionnaire to capture information on students' general perceptions of the impact of group-work on their learning; their views on and experiences of group-work that they had experienced in DES particularly; and what they think would work best for them in terms of their learning experiences and perspectives. We also asked questions to get students' views on working in culturally diverse groups, with respect to what they learned about other students' cultures and what they felt was the most important attitudes for effective group-work. A series of Likert-type and Likert scale questions (with responses ranging from 1 =strongly disagree to 5 = strongly disagree or highest =1 to lowest =7) were asked to create a measurement of attitudes towards group-work. Likert scale data were analysed based on the composite scores (means) from the different series of questions that represented the attitudinal scale. With Likert type items, multiple questions are asked but there is no attempt to combine the responses from the questions into one composite scale (Clason and Domordy, 1994). Perceptions and or comments were analysed by way of identifying and coding topics and formulating different themes, the interpretation of which we present in this paper.

We collected data after informing students about the intention and purposes of the study. We also highlighted that while students' participation was completely voluntary and would not influence their semester grades, their honest responses would be of great value to our understanding of group dynamics, and for the improvement of group-work exercises in future offerings of courses in DES. Assurances of participant anonymity and confidentiality were made.

In total, the sample consisted of 75 out of a combined total of 106 2nd and 3rd year students. Second year students completed their questionnaire in class during the first 15 minutes of the lecture period. Out of 68 students, 52 completed the questionnaires as some students were absent and others chose not to participate. Third year students were given the opportunity to fill in the

questionnaire outside of class and 22 out of 38 students responded. Out of all the participating students (n=75), the majority (56%) were 'white', 32% were 'black' and 12% did not indicate their ethnicity. Note that whilst we are aware of the problematics of such distinctions, the structural definition we are using for these racial characteristics are to indicate 'white' as of European ancestry and a broad understanding of 'black' as of African descent including Indian and Coloured 'mixed race' individuals, as this is still the predominant separation utilized within equity discourse nationally. Fifty-six percent of the sample students were women, 37 % men and 7% chose not to specify.

3. Findings and discussions

Given the diverse backgrounds of the participants, we decided to explore how group-work dynamics and effectiveness would be directly or indirectly affected by ethnic background and other individual behaviours and intergroup relations. In this section, we discuss the findings around the key themes emerging out of the study, namely, group-work and students' interactions; group-work and the students' learning experiences; and then having re-considered those larger contexts, turn our focus to group-work dynamics in the face of ethnicity.

Group-work and students interactions

Group-work is believed to promote active interactions and negotiations among students given that students have to exchange information and ideas (Mann, 2001; Knight, 2007). Often in group-work students are exposed to divergent viewpoints which promote exposure to new perspectives and understanding of given topics or concepts. However, there are two pedagogical approaches to group-work - students can reach final group-based decisions either through consensus or other means. With regards to decision making in group-work activities, 40% of the students said that decisions were reached through discussion and consensus, while 27% reported that they arrived at the final decision through voting. The remaining set of the students said one person usually made the decision and others agreed to it. The results suggest that the majority of decision-making occurred in a seemingly interactive and democratic way.

Knight (2007) argues that the use of groups can provide a change to the regular classroom routine, but the results are rarely all positive. A common assumption is that invariably one or two

students in each group may be unwilling to share their insights because they are shy, lack self-confidence or prefer not to perform publically. In this study, most students (61%) reported that when it came to the verbal presentation of the group-work results, they were not at all comfortable. The issue of verbal presentations also came out quite strongly when students evaluated the teaching of a second year Environmental Science course that one of the authors teaches. Because of these different personalities, the person who becomes the group leader by default or proclamation is often not sensitive to engage the quieter students in conversations (Knight, 2007). Currie (2007) argues that students who find it difficult to make their voice heard may feel socially isolated which most likely promotes alienation rather than active engagement. Mann (2001) argues that the issue of voice in higher education should be promoted if students are to engage deeply with certain subject concepts. This is an important proposition in the context of South African higher education which has a history of discrimination against 'black' students. Asked about the most important behaviours that influence a group's ability to be productive, 51%, 40%, 32% and 27% of the students respectively reported that 'group members that express their ideas clearly and listen well'; 'group members that get along very well'; 'groups that are good at brain storming'; and 'members that do what they are told to do' as important attributes'.

We explored the attitudes of students towards collaborative activities. The means for each subscale (on the 5-point Likert scale except for preference variable) are indicated in Table 1. The statistical data for the different aspects/variables show mixed indications. Most of the attitudinal variables reflecting ability to work in group-work, participation and co-operation in group-work and preference for diverse group composition were positive as shown by higher means of more than 3.5. The findings also show some positives regarding the measure of 'social loafing' with a lower mean of 2.1 (social loafing is a situation where group members deliberately put less effort in collaborative work than they would do individually). However, the feelings of students were not clearly identifiable as most mean scores for the different perception variables floated around '3'- perhaps indicative of uncertainty at best and indifference at worst. Fifty-five percent reported that participation in group activities throughout the Environmental Science courses was to some extent having a positive impact on their education. However, only 21% of the students reported they had gained personal satisfaction from participating in group activities.

Table 1: Means of students’ attitudes and perceptions about working in groups

Aspect	Mean
A. Attitudes	
In group discussions, I always try to participate (5 indicates high level of willingness to participate)	4.3
I feel that I am able to work well in any group (5 indicates high level ability to work in groups)	3.7
Cooperation among all group members is necessary for us to accomplish our objectives (indicates the majority of respondents believe cooperation is important in group-work)	4.5
In our group, my contributions are taken seriously	4
I am expected to make an equal effort towards our group project as all other group members (5 indicates	4.6
I take on the role of facilitator to move ideas forward or to relieve frustrations (5 indicates high ability to facilitate group-work)	3.4
At times, I purposefully do not participate in group discussions (5 indicates high tendency to expend less individual effort when working in a group)	2.1
B. Perceptions	
Perceptions of academic impact of group-work (5 indicates high value of group work from an academic statement)	3.5
Satisfaction from group-work (5 indicates high level of satisfaction)	3.2
I have skills and experience that make me good at work (5 indicates the majority of students has group-work experience)	2.4
Group composition (5 indicates high preference for group diversity)	3.6
University classes require group projects worth more than 25% of final grade (5 indicates the majority of students support this idea)	2.8
Preference (3 indicates high preference to work in groups)	1.3

Surveys also show that some students felt that their contributions were not taken seriously hence they did not actively participate in group-work. Other students felt that cooperation was not entirely necessary to complete given tasks. With regard to the later, the findings suggest that groups could be marred by ‘social loafing’. ‘As it is a central concern, social loafing is discussed in detail in the next section. Generally the findings show that most students had positive attitudes towards group-work but perceived that group-work had not achieved its potential, in part due to constraints explained below.

Group-work and students' learning experience

For group-work to achieve the desired goal of quality learning there is need for exchange of information and understanding, involving the construction of knowledge in which all students contribute and gain new or enriched perspectives (Holmes, 2004; Knight, 2007). However, group-work can be highly frustrating if it is not well planned. Several constraints that made group-work activities undesirable among students were identified. Time management followed and non-participation of other group members were highlighted as the two main constraints, mentioned by 55% and 39% of the students respectively. Free riding by group members in collaborative activities is well documented in the literature (e.g. Oakley et al. 2004; Levin, 2005; Knight, 2007). Other constraints mentioned were the dominance of individual group members, personality clashes, coordination issues, intra-group conflicts and different targets or approaches to learning with respect to the final grade.

This latter constraint bears further discussion. Different academic goals relate to how while some students may want to achieve higher grades in this particular subject, others may be content with just a pass. In this way, we could identify heterogeneous approaches to learning. Related to this, less than half of the students (49%) reported that they tried to understand deeply the central concepts of Environmental Science courses, and how they might be applied in practice (deep approach to learning). A further 32% of students said they try to figure out what is required to pass and aim to achieve that, which indicates a strategic approach to learning, while 11% did just enough to pass, and the rest reported a combination of deep and strategic learning depending on factors such as time availability and the weight of the task in relation to the overall grade. Those students who were aiming for higher grades claimed that they felt they had ended up taking responsibility and doing most of the group tasks, despite agreements to share the workload equally. The following comment by one participant illustrates this feeling:

“I dislike that I always have to work harder in group-work when other members do not pull their weight”.

In relation to this, in their responses, some of the students bemoaned the fact that they felt as though they were often expected to do more than their group colleagues; while others pointed out that most group tasks or objectives could still be completed, with only a few people doing the

work. This sense of the group dynamic versus individual member's performance, is revealed in the discrepancy between the higher marks groups as entities scored (e.g. 75%), compared to when group members were ranked individually through peer reviews, where they scored substantially lower marks. As noted in Table 1, a substantial proportion of students did not believe university classes should have significant group projects worth more than 25 % of their final grade, as apparent in one student's remarks:

"I believe occasional group-work can be advantageous but when it becomes relied on too much (such as in the department of Environmental Science) it is not effective at all. In groups you are only as strong as your weakest member and relying on other people often brings down my marks."

This discontent is supported by the fact that most students (68%) said that given an option they would work independently. These findings are consistent with findings elsewhere. For example, Byrnes and Byrnes (2007) argue that most students say they hate groups because the least of the students will drag down the best. Referring to these motivated and annoyed students who adopt a deep approach to learning as 'lone wolves', Byrnes and Byrnes (2007) suggest that it may be useful to form a group of such individuals. Students reported that they would like group-work more if all the group members worked equally hard and had the same vision and wanted to excel.

Group-work dynamics and ethnicity

With respect to group composition, students had mixed opinions about the effectiveness of composing groups in the manner chosen by DES curriculum designers, namely balanced across ethnic backgrounds. More than half (59%) of the students perceived that such balanced groups are likely to achieve the best learning experience for them, arguing that, having a range of people will generally produce a diverse set of ideas which will be invaluable for the project. As one student remarked:

"With different backgrounds, different and well-rounded perspectives are incorporated into the project".

Apart from academic benefits, some students also reported that group-work offered them an opportunity to learn how to deal with different personalities which is critical in most organisations, as illustrated in the following statement by a student:

“My group was not very cohesive but gave me insights on how to deal with problematic personalities in the future. Group dynamics are essential and inevitable in life”.

However, a sizeable proportion of the students (41%) felt that diversity was not that important, as groupwork effectiveness depended on willingness and proactive nature of those individual members who wanted to work hard and get good grades. Comparisons of satisfaction measures by preferred learning approach ($p = 0.75$), gender ($p = 0.19$) and ethnicity ($p = 0.49$) yielded statistically insignificant results. Perhaps this could be attributed to missing values in an already small data set. Hence some of the results should not be overgeneralized.

Qualitative responses by the different ethnic groups showed that the majority of students (94%) across the racial and ethnic divide encouragingly felt that they could learn from different ethnic backgrounds and experiences. Only, a smaller proportion (12%) of black students perceived that their views were not seriously considered in group-work as demonstrated in the following statement:

“Sometimes you do learn from people who are different from you in terms of ethnic background but some people do not even consider your opinions because they generalise you to your background. My friends and I have experienced this.”

This indicates that some black students perceived that ethnicity usually determined whose views in collaborative projects carried more weight. Such perceptions are illustrated by remarks from a black student:

“I think being from different ethnic backgrounds played a huge role as one was judged even before they could present their ideas to the group.”

Perhaps the feeling among these students that their ideas were not valued, maybe a product of history. Usher (1998) suggests that students' experience of alienation in higher education context is a function of the socio-historical process. People are positioned differently depending on the discursive practices of socially and historically significant features such as gender, race, class, ethnicity and other marks of difference (Usher 1998, p.20). In South Africa, black communities were discriminated against under apartheid rule and many people still have these scars and inferiority complexes. In fact, the Department of Education (2008) argues that in spite of the official dissolution of apartheid in 1994, strained intergroup relations or the perceptions thereof

persist in contemporary South Africa. Added to this, some cultures are stereotypically viewed as passive, while others are perceived as participative (Holmes, 2004; Nguyen et al. 2008). Members of social groups that are being discriminated against generally carry the stereotypes associated with their groups into other situations (Crocker, 1999). This may have been apparent in this study as those students who indicated that they were not comfortable with verbal presentation but preferred the traditional teacher-student lecture were most particularly black students. Such different learning preferences, attitudes and perceptions of others' learning attitudes from cultural and educational experiences have been found to prove to be problematic in group-work (Nguyen et al. 2008). Ethnicity issues, whether real or perceived, need to be well understood as they may have implications for students' active participation in group-work. The extent to which one can become alienated or engaged in group-based activities has important implications for the effectiveness with which one can perform academic tasks or achieve academically (Chemers et al. 2001).

While most students agreed in principle that a mixture of cultures and ethnicity can improve their learning experience, they also highlighted that while desirable, group-work does not always lead to substantive interaction between students or to better academic results. In this study, students, from all ethnic groups, felt that mixed groups were not always effective as they created challenges with communication. The following statement is testimony to the mixed outcomes of diversity in group-work:

“Diversity lends new perspectives but also new problems. If one works with someone who is of similar ethnic group or anything sometimes it helps because you are able to communicate and interact more strongly than someone who is different from you.”

Whilst the above statement reflects an individual experience, a critical reading might be that communicating across a diversity of viewpoints may force the student to make his/her assumptions explicit, rather than presumed, as it may be between two individuals from similar backgrounds. Whilst a student may prefer what is easiest for them, diversity may offers more learning benefits because the challenges it poses force students to learn about different ways of doing and communicating.

However, it is also important to highlight that all groups (including one culturally homogenous one) also mentioned that some of their group members did not pull their weight. Our interpretation of the analysis indicates that the responses point to some important aspects. First, the complexities associated with group-work management such as non-participation of group members transcend the issues of race and hinge more around individual's approaches to learning. The diversity of students opinions regarding group-work within and across different ethnic groups discussed in this study supports this fact. Second, higher education contexts need to go beyond just provision of group-work skills to previously disadvantaged students or even affective support for them to thrive in 'alien' territories, but rather to work to make such spaces to be more hospitable and inclusive learning environments (Mann, 2001), thus altering it at a systemic and cultural rather than agential level. Given the rapidly transforming student composition in higher education institutions globally and considering the educational benefits of diversity, it is highly likely that student composition will become even more heterogeneous in the future in South African higher education institutions. This means that there is compelling need to provide enabling conditions for students to be at the productive wave-length of working in groups. Without such attempts, group-work goals of enabling high quality learning may be more difficult to achieve in culturally and ethnically diverse environments which will add weight to real or perceived prejudice that students may already have against certain groups.

4. Conclusions and recommendations

It has long been recognized that the benefits of group-work are not automatic and that being in an ineffective or dysfunctional team may be inferior to independent study in promoting learning (Oakley et al. 2004) and may lead to extreme frustration and resentment. It is therefore unsurprising that given the group-work constraints discussed, many students reported they would prefer working independently. Based on the study, our strong conviction is that these findings are not indicative of the unwillingness of students to engage in group-work. Rather the findings perhaps point to the problematic preconditions under which groups are formed and group-work is practiced. The seemingly dysfunctional group-work may not be due to individuals in the group but rather, as this study suggests, the legacy of presumptions and projections of differences associated with structures such as race. Other studies have shown that group-work requires group members to have certain attitudes such as respecting other people's cultures, personality traits

such as practice and openness; skills such as build team-work or integration and knowledge relating to understanding the culture of others (e.g. Levin, 2005, Wood et al. 2011), which themselves suggest constructions of tolerance and social etiquette which themselves may be culturally-based.

Contemporary discourses construct group-work as a good teaching method which provides productive terrains of learning for students in higher education. The assumption is that group-work is a neutral method of engaging students, and as such group-work proponents seldom highlight cultural considerations. While groupwork may be desirable and yield high quality learning, practice on the ground in this case showed mixed conclusions, suggesting a mismatch between the intentions of the curriculum designers and the experience of participants in this context. According to Woods et al. (2011, p.60), “students from diverse backgrounds can have different learning styles and preferences hence it is critical that learning and teaching practices are tailored to meet these diverse needs”. However, we found that it is equally important to understand the factors, including those relating to student’s internal motivation, that make students prefer certain learning styles to others. If group-work is to be effective and enjoyable for students, certain steps should be taken to help students be aware that such group-work may aid them in skills such as those to do with communication, and to equip students to deal effectively with problems that often arise in collaborative learning activities. If the teacher explicitly explains the validity of diversified group-work and the worth of the challenges the students may face when problem-solving by collaborating, this may lead to more students ‘buy in’. There is more chance they will more willingly engage with the process of group-work. Our main argument is not that group-work is neither desirable nor ineffective, but rather there are exogenous factors that should be explored to get insight into the attitudes and perceptions of students towards group-work. Based on the findings, we argue, as have others (e.g. Mann, 2001; Badat, 2007) that despite explicit strategies, such as group-work, aimed at developing critical beings for personal engagement in study subjects, inclusion and lifelong learning, the issues and complexities of diversity ought to be given attention by facilitators, if they are to be harnessed for educational worth.

Though it can be argued that the pledge for transformation in South Africa higher education has largely missed its target (Badat, 2007; Scott, 2009) positive progress has been achieved. To turn the transformation mandate to full throttle, group-work dynamics need to be well understood through empirical research, particularly within our national context. In keeping with social-cultural theories of learning, we believe that the socio-economic and the cultural context of students' lives and of the institutions where they learn need to be further explored. This is because students may live in different socio-economic landscapes where gender, race, class and other factors impacting on the heterogeneity of the group may interact significantly in ways which may influence their attitudes to learning in groups. This is fundamental because it has been at least empirically proven that it is not the 'student that matters' but the processes and value systems that shape and direct learning (Haggis, 2006; Scott, 2009). Such an understanding will help to reconfigure how we think about group-work ability to achieve the goal of high quality learning. To us this understanding is critical as this challenges educators to reflect on their teaching strategies and the assumptions that underpin them.

On the micro level, in the context of this case study, the nuanced understanding that this research has allowed is being used to constructively (re)align (see Biggs, 1999) curriculum design regarding group-work activities, with the intention of coming closer to achieving high quality learning. Within the context of higher education, we hope this research has resonances for a wider audience, and hope it will encourage more research around problematising teaching methods in the face of socio-cultural challenges. While the diversity of students in South Africa poses the challenge of dealing with the 'underpreparedness of some students from previously disadvantaged backgrounds' (Boughey, 2004), if properly conceptualised, designed and implemented we still maintain that group-work can generate high quality learning. As noted earlier, we think these results do not necessarily indicate that the use of collaborative learning strategies does not facilitate learning, rather they point to the need to rethink the factors that could improve the effectiveness of group-work. As Mann (2001, p8) suggests, "critical work must be done to examine the conditions which might promote alienation within higher education contexts" and the ways in which we can provide hospitality for difference. Without this, students can become increasingly alienated from activities which they should be involved in to facilitate

their learning. Consequently, groupwork may become ‘platforms of failure’ rather than ‘terrains of learning’.

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